UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
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July 29, 2014

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Attention: Jennifer Jacobson

Subject: EPA Comments on the Draft Environmental Impact Statement (DEIS) for the Proposed Bayou Casotte Harbor Channel Improvement Project. Jackson County, Mississippi. CEQ #:20140154; ERP #: COE-E32086-MS.

Dear Ms. Jacobson:

Pursuant to Section 309 of the Clean Air Act (CAA) and Section 102(2)(C) of the National Environmental Policy Act (NEPA), the U.S. Environmental Protection Agency (EPA), a cooperating agency, reviewed the Preliminary Draft Environmental Impact Statement (PDEIS) and the Draft Environmental Impact Statement (DEIS) for the Proposed Bayou Casotte Harbor Channel Improvement Project in Jackson County, Mississippi. The DEIS evaluated the environmental consequence of widening the channel from the Horn Island Pass to the entrance of the Bayou Casotte Harbor and associated future operations and maintenance (O&M). This letter is intended to provide EPA's comments on the Proposed Bayou Casotte Harbor Channel Project.

The Port of Pascagoula is the largest Mississippi seaport moving approximately 35 million tons of cargo annually. The port contains two harbors, the Pascagoula River Harbor and the Bayou Casotte Harbor, that support both public and private terminals. Since the last major navigation project in 2001, Bayou Casotte Harbor has experienced substantial growth in vessel traffic and cargo. Major investments at the harbor, such as the development of a Liquefied Natural Gas (LNG) facility, have occurred that require changes to the navigation conditions.

The existing federally authorized navigation channel restricts deep draft vessels to one-way traffic and restricts vessels greater than 700 feet length overall or product tankers that are 36 feet or greater to daylight operations. The proposed widening and bend-easing project is expected to increase the efficiency of vessel operations by reducing congestion in the harbor channels; accommodating existing and future growth in cargo and vessel traffic; and improving the efficiency of vessel operations.

The DEIS evaluates a No Action and eighteen structural action alternatives for Pascagoula Harbor's Lower Pascagoula and Bayou Casotte Channels project (Section 3.6). The No Action Alternative involves maintaining the existing navigation channel at Pascagoula Harbor to its federally authorized depth of -42-feet, plus -2-feet of advanced maintenance and 2-feet of overdepth dredging and width of 350- feet. The action alternatives include widening the Lower Pascagoula Channel and Bayou Casotte Channel by 50-foot increments to a total width of 150 feet on one side or 75 feet on both sides of the channel. Inclusion or exclusion of bend easing between Horn Island Pass and the Lower Pascagoula Channel is also evaluated.

The DEIS identifies the Tentatively Selected Plan Alternative in the Feasibility Study (Alternative 11) as the proposed action alternative. The proposed action alternative recommends widening the navigation channel 100-feet to the west approximately with bend easing into Horn Island Pass for an approximate total length of 7.2 miles /38,200 feet. The northern portion of the Horn Island Pass Channel would be widened as necessary to facilitate (ease) the transition between the two channel segments.

EPA understands that a hopper, mechanical, or cutterhead dredge or a combination of these dredge types will be used to remove sediments from the channel. As a result of the proposed action, new work material will be generated in areas not previously dredged, and maintenance material will be obtained from areas where dredging has occurred and sedimentation has affected the approved channel depths and/ or widths. The bathymetry of approximately 75.02 acres of shallow estuarine bottoms will be permanently changed.

Approximately 87.6 acres of Gulf sturgeon critical habitat will be widened and habitat along the west side of the channel will be deepened from "-9 to-13 feet deep to -46 feet deep mean lower low water." The open water disposal areas proposed for future operation and maintenance materials may also affect critical habit associated with 7,450 acres of open-water sites, 985 acres of a littoral zone site and 1,523 acres in disposal area 10 (DA-10).

According to the DEIS, dredged material will be placed within the U.S. Environmental Protection Agency's Pascagoula Ocean Dredged Material Disposal Site (ODMDS), DA-10, and the littoral zone placement site. Future operation and maintenance (O&M) dredged material will be placed within several areas including pre-existing open-water disposal areas adjacent to the channel, the littoral zone, DA-10, and/or the Pascagoula ODMDS. Approximately 3.4 million cubic yards (cys) of dredged material would be removed from the navigation channel as part of the dredging project. Approximately 3.3 million cys of dredged material would be placed within the Pascagoula ODMDS south of Horn Island and 125,000 cys of dredged material would be placed within the littoral zone placement site and/or DA-10 located east and south of Horn Island.

In 2013, EPA reviewed the U.S. Army Corps of Engineers (USACE) Marine Protection Research and Sanctuaries Act Section 103 Evaluation Report and supporting documents. We indicated what materials met the exclusionary criteria and therefore would not require additional testing for pollution prior to disposal. EPA also noted materials dredged from the Bayou Casotte Channel and the Pascagoula Lower Sound among others that would not be suitable for beach nourishment because they are not far removed from existing and historical sources of pollution.

During the same period, EPA completed an independent evaluation of the suitability of dredge material within the Pascagoula Navigation Project for disposal at the Pascagoula Ocean ODMDS and concurred with the Mobile District's determination that the proposed dredged material would comply with the criteria detailed in 40 CFR Part 227. Conditions for this concurrence were described in an attached Decision Memorandum. EPA requested that the conditions of the concurrence be examined for each segment detail. Our concurrence is valid for three years from the date of the letter and it is conditioned upon several factors including dredging contract conditions that ensure compliance with the Pascagoula ODMDS Site Management and Monitoring Plan and bin sizes (i.e., barge, hopper loads) as well as providing EPA with disposal tracking data required by the Site Management and Monitoring Plan (SMMP) during the project in accordance with the National Dredging Quality Management Program Guidance. We also indicated in the letter that "if operation and maintenance and improvements are dredged together, the lowest cubic yard volume limit should be used."

Over the last 100 years, sea levels have risen along the MS Gulf Coast and it is projected to continue to rise. EPA appreciates the assessment of climate change and the potential future impacts resulting from the proposed action in the DEIS. Specifically, temperature, precipitation and air emission were examined. EPA is requesting clarifying or additional information regarding sea level rise projections, possible impacts related to increased inland water flow volumes and projected Greenhouse Gas Emissions (see EPA Detailed Comments).

In addition, EPA notes the inclusion of environmental justice (EJ) and children's health as part of the assessment process. The DEIS indicates that the block groups or areas with high minority populations or children were unlikely to experience impacts (direct) associated with the widening due to distance from the Port dredging and disposal activities. EPA is requesting additional information regarding possible indirect or cumulative impacts, public engagement and outreach strategies and public comment summary related to EJ or Children's Health Issues (See Detailed Comments).

Overall, EPA appreciates the efforts made to address many of the environmental resource and disposal issues. Based on our analysis of the proposed action, EPA rates this DEIS as EC-2 i.e., EPA has "Environmental Concerns' and "Additional Information" is requested. EPA's rating system can be found online at: http://www.epa.gov/oecaerth/nepa/comments/ratings.html. EPA anticipates that the widening of the channel to depths of 19 feet or greater will change shallow silty clay bottom habitat to less productive deeper habit that may likely result in hypoxic conditions or reduced water quality, alter critical habitat for the endangered species such as the Gulf sturgeon, and possible impact cultural resources. To minimize and mitigate some of these impacts, compliance with a GRPO for hopper dredging and trawling is planned to reduce the number of incidental takes of Gulf sturgeon and an MOU was developed to minimize or mitigate impacts to cultural resources. We recommend that the FEIS include appropriate monitoring and /or adaptive management strategies for water resource impacts (i.e., salinity), to ensure that impacts to sensitive resources or species are minimized and/or appropriately mitigated.

EPA appreciates the opportunity to review the proposed DEIS. If you have any questions regarding our comments, please contact Ntale Kajumba (404/562-9620) of my staff.

Sincerely,

for

Heinz J. Mueller, Chief
NEPA Program Office
Office of Environmental Accountability

Attachment:
EPA Detailed Comments

EPA Detailed Comments on the Bayou Casotte DEIS

Climate – Sea Level Rise pg 2-51 (3-137) The DEIS notes that changes to climate related to temperature and precipitation, affect the water balance of river systems and connected estuarine systems. Climate change in the Mississippi Gulf Coast would alter freshwater flows from the Pascagoula River to Pascagoula Bay. These changes in freshwater flows would change estuarine salinity and circulation regimes. However, the DEIS indicates that the magnitude and details of these changes is unknown. The cumulative effects of these changes, along with the implementation of the proposed project, are also not known with enough detail to support further assessment. The USACE indicates that the significance criterion for climate would be a permanent disruption in the climate and weather patterns in Mississippi Sound or the Pascagoula Harbor's Lower Pascagoula and Bayou Casotte project area.

- Salinity - EPA notes that salinity modeling effort were conducted to determine potential salinity-related water quality and aquatic ecosystem impacts. The model indicated that there would be circulation change, but these changes would not be substantive (pg 4-193). We recommend the district explore additional monitoring and base mitigation, similar to what was proposed for Port Jacksonsville Harbor improvements. Jacksonville District proposed a base mitigation plan to offset 394.57 acres of potential wetlands impacts and 180.5 acres of potential submerged aquatic vegetation impacts. The base mitigation plan consisted of conservation land purchase of 638 acres of fresh water wetlands, uplands, river shoreline, and salt marsh wetlands. The District determined this plan would sufficiently offset any minor salinity effects to upland wetlands and streams that may occur as a result of the proposed Jacksonville Harbor improvement. Additionally, they will monitor for 10 years to verify their modeling results. See: Final Integrated General Reevaluation Report II and Supplemental Environmental Impact Statement (Feb. 2014) available at http://www.saj.usace.army.mil/Missions/CivilWorks/Navigation/Ports.aspx pg 4-185.

- Sea Level Rise – Projected future sea level changes and impacts were assessed in accordance with the USACE guidance. EPA finds the two paragraphs in the DEIS statement, in Section 3.3, p. 3-147, discussing sea level rise projections unclear. Is the document stating projected sea level rise for the 21st century to be 12 inches? EPA recommends the DEIS clarify the sea-level-rise estimation being used. Because the proposed action is a permanent modification and it is uncertain whether sea level rise will be gradual or punctuated in occurrence; the use of the 100-year sea- level-rise projection, at a minimum, would seem appropriate.

  The proposed action combined with any erosional widening effect, may allow more water volume inland associated with high tides, storm events, the combination of storm events timed during high tides in context of the study area's land elevation of 16-feet above sea level. The recommended discussion should include the significance of widening the proposed channel and the indirect effect of potentially allowing more water inland. Including a discussion of the risk of increased flooding footprint inland and associated impacts to any existing land use (e.g., residences) occurring at, near, or below sea level. This discussion should include a topo map to illustrate where these impacts are most likely to occur. Additionally, the discussion should reflect the USACE's current

guidance, which requires a sea level analysis to be done at 3 different calculated foreseeable sea-level-rise scenarios.

- Air/Greenhouse Gas Emissions: In Section 4.4.2, p. 4-171, the DEIS states: Air emissions from the Proposed Action Alternative will result from the operation of dredges, the support vessel, the multi-purpose construction vessel and the land-side construction equipment powered by internal combustion engines that produce exhaust emissions. *Emissions from this equipment will result in an increase in greenhouse gas emissions that could contribute to global climate change. To date, specific thresholds to evaluate adverse impacts pertaining to greenhouse gas emissions have not been established by local decision-making agencies, the state, or the Federal government.* EPA recommends the USACE use CEQ's draft guidance on climate change which establishes an emissions threshold and provide potential GHG emissions sources and projected quantitative amounts based on anticipated equipment, vehicles, vessels, etc. anticipated to be associated with the proposed action, including indirect and cumulative effects. See: *Draft NEPA Guidance on Consideration of the Effects of Climate Change and Greenhouse Gas Emissions* (February 18, 2010) Memorandum for Heads of Federal Departments and Agencies.

Water Quality - The DEIS states: *The primary driver of water quality is the rivers, including the Pascagoula River that feed into the Sound* (Section 2.4, p. 2-93) without referencing any supporting scientific documentation. It is unclear how the USACE knows fresh water is a greater impact to water quality than the Gulf of Mexico's hydrologic system for the proposed action's study area. Consequently, EPA recommends the FEIS provide a citation or reference to supporting scientific documentation for information, provided in this document.

Environmental Justice (EJ)/ Children's Health
According to the DEIS, the Port is surrounded primarily by industrial, residential and commercial land uses. There are census block groups (Block Groups 4 and 1) within the project area that have high minority populations, but that are located furthest from the port. According to the DEIS, direct impacts are not anticipated to these block groups with communities with EJ concerns or to children (e.g. 5 schools within a mile of the project), given the distance from the dredging and disposal activities to the shoreline. EPA recommends that the FEIS include a summary of any EJ and/children's health concerns raised during the public engagement process, a discussion of efforts to engage minority and low/income populations and a brief discussion identifying whether there are anticipated indirect or cumulative impacts associated with the proposed activities and if so what those potential impacts to children or communities with EJ concerns could be.

Reasonably Foreseeable Projects- EPA notes that the document indicates that the filling of 400 acres of open water and construction of various facilities at the Port of Gulfport is not considered to be reasonably foreseeable even though the USACE is currently developing a DEIS for the proposed expansion. The DEIS indicates that an implementation timeline has not been developed for the project and therefore the project is not considered reasonably foreseeable. EPA questions the conclusions reached and believe the project is sufficiently planned to make certain conclusions.